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Docket # EPA-HQ-Ord-2013-0189

U.S. Environmental Protection Agency

1200 Pennsylvania Ave., N.W.

Washington, D.C.

Subject: EPA Watershed Assessment

My name is Lance Trasky. I am a Fisheries Biologist with over 45 years of experience in assessing the impacts of thousands of projects on fish and fish habitat including large and small mines. I am a retired Alaska Department of Fish and Game Habitat and Restoration Division Regional Supervisor and had responsibility for the proposed Pebble Mine from the time of its discovery in the 1980's to 2003 when Governor Murkowski dissolved the Habitat Division and transferred its functions to the Department of Natural Resources to expedite development of non renewable resources. I was the Alaska Department of Fish and Games representative on the Bristol Bay Area Planning (BBAP) process and one of the authors of the 1986 Bristol Bay Area Land Use Plan which made fish habitat and harvest the primary use of most of the state land in the Bristol Bay Planning Area. I successfully advocated closing all the known anadromous streams and their stream banks to mineral entry in the BBAP. I am also the author of two reports on the potential effects of the proposed Pebble Mine on fish and fish habitat in the Bristol Bay region. I am very familiar with the states regulatory system and with the current state of resource development politics in Alaska.

I reviewed EPAs summary and concur with EPS's finding that the Pebble Mine will have significant adverse effects on the salmon resources of the affected watershed's, and that the infrastructure developed for that mine would allow the development of other large mines with similar impacts in other watersheds of the region. However, I believe that the impacts are more probable and likely more severe than predicted. My reasons are:

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1. The state land use management and regulatory system is strongly biased toward the development of mines etc over protection of fisheries resources. For example the Alaska Department of Natural Resources (ADNR) changed the primary use of state lands in the Bristol Bay Area Plan from fish and wildlife habitat and harvest to mining to promote the development of the Pebble mine. This is further supported by the fact that the Governor Parnell introduced bills in the current legislative session to eliminate public notice for many types of ADNR actions related to mining and to prohibit non governmental agencies and persons from applying for rights to retain water in stream for fish and wildlife. The Alaska Coastal Management Program which provided standards for coastal development assembled and distributed draft state permits and provided an opportunity for local governments to review state and federal and state veto projects which would adversely affect their interests was first moved to the Department of Natural Resources and then eliminated entirely. The entire state permitting process is now coordinated by ADNR. The ADNR Large Mine Permitting Process is very efficient at expediting permitting for mines, but really has no process for denying mines. The States fish habitat protection statutes which are administered by ADF&G sound good but have no enforceable standards. They contain provisions such as "if the Commissioner finds it necessary (to protect fish habitat), and the commissioner must provide for the "proper protection of fish and wildlife". Most importantly the fish habitat protection statutes have no requirement for public notice, and no appeal process for anyone but the applicant!
2. Your analysis did not consider that once the mine plan is approved and permit are issued that stipulations and conditions to protect fish and fish habitat can be relaxed administratively by the State through amendments. This is facilitated by the states assumption of the Clean Water Act Program and the Governors bill in the current legislature to assume management of the Corps 404 program. The Governor has also introduced House Bill 77 which largely eliminates public oversight and involvement in large mine activities through the issuance of general permits for many activities on state land. This bill passed the State House and is up for a vote in the State Senate this fall. The bill would also change existing in-stream flow statutes to prohibit private citizens and organizations from applying for in stream flow reservations to protect fish and wildlife and habitat and would void the hundreds of applications currently pending. One Senate Senator who read the Governors bill said that, "This is one of the most sweeping and one of the worst bills I've seen come before the legislature. "The commissioner of ADNR, if this bill passes, has the ability to override any law in the state, practically, if he wants to do something on state land. There's no public notice required, there's no appeal process required, there's no best interest finding required, we're taking away appeal rights. This is just a sweeping change of natural resource law (Anchorage Daily News May 19, 2013)."
3. Once the mine is opened and substantial mining occurs there is no way to practically or politically shut it down, even if the mine turns out to be uneconomic or causes serious pollution. Without constant pumping, maintenance and treatment the open pit and underground workings will quickly begin to fill with water and oxidation of the exposed sulfides will generate heavy metal contaminated water. This water will eventually overflow the pit and begin to contaminate surface and ground water. Neither the state nor federal government will want to assume the cost of remediating the pollution so the mine will be allowed to continue to operate

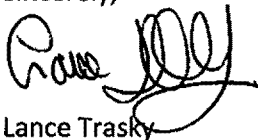
- and fisheries will suffer. There is also the possibility that the mine may prove to be uneconomic at some point in the future in which case the federal government would have to treat the mine as a superfund site such as the Grouse Creek Mine in Idaho or the Summitville Mine in Colorado.
4. Because billions of tons of acid generating mine waste must be stored behind porous earth fill dams in perpetuity, it is inevitable that these dams will eventually fail or leak. Over thousands of years the system of pipes, drains and liners necessary to capture and return the contaminated water leaking from the largest earth fill dams on earth will eventually break or corrode under the crushing pressure and highly corrosive environment underneath the largest earth fill dams on earth. There will be no way to replace any of these pipes, pumps and equipment which will be located hundreds of feet under the tailing dams. There is also some question if anyone will notice or care in a thousand years. There have been at least 93 tailings dam failures since 1960 and 47 since 1990 when it can be assumed modern regulatory and engineering practices have been in place. A number of the most dramatic tailings dam failures have occurred in the U.S. The failed dams have been much smaller than the proposed Pebble dams and none have been in place for thousands of years. The Pebble claims are located in a seismically active area and there is some evidence that it is located on a fault. It is possible even likely that a very large earthquake in the next thousand years could cause the saturated tailings to liquefy and slump into Talarik Creek or the Koktuli River.
 5. It seems likely that there will be more pipeline breaks that impact fish and other aquatic life than EPA's analysis indicates. The slurry will be highly corrosive and abrasive and will eventually wear or corrode through the pipe unless the pipe is replaced regularly. The low spots in the pipeline will be at the stream crossings. There have been dozens of pipeline breaks in the Prudhoe oil field due to corrosion, poor maintenance and inadequate State oversight. A simple Internet search for slurry pipeline spills turns up numerous recent slurry pipeline spills in the U.S even with modern engineering and regulatory practices in place. None of these slurry pipelines were located in areas with the extreme freezing and thawing conditions and earthquake hazards present in the proposed Pebble Mine area.
 6. Important environmental threats may have been overlooked in the EPA analysis for the proposed Pebble Mine. For example the EIS for the Red Dog mine did not consider that the sulfide ore that would be mined would be acid generating! It also failed to anticipate that lead zinc concentrate blowing from the mine, uncovered trucks, and storage piles at the dock would contaminate thousands of acres of private land and National Monument with toxic levels of lead and zinc. The Red Dog EIS concluded that the mine, which has been identified by EPA as the biggest industrial polluter in the U.S., would have no significant impact on the environment! The EIS also anticipated that the tailings piles would remain permanently frozen negating the need for expensive tailings storage and treatment facilities. Unfortunately this has not occurred because of global warming or inadequate engineering. Similarly a few months before the Exxon Valdez oil spill the Alaska Department of Environmental Conservation and the U.S. Coast Guard reviewed the Alyeska oil spill contingency plan for Prince William Sound and found that Alyeska had the type and amount of equipment to contain and clean up the largest tanker spill! When the spill occurred it became evident that Alyeska did not have enough equipment and much of that was inoperable. A post spill analysis revealed that Alyeska's booms and

skimmers were not effective in over 3 foot waves, 15 knot winds or 1 knot currents, conditions which occur over 65 percent of the time in Prince William Sound!

7. State and Federal review, monitoring and enforcement of large projects in Alaska has not been adequate to prevent major problems. A good example is Federal review and approval of the Shell Chukchi Sea drilling program. In spite of all of the regulations, expert review, inspections etc. it became evident that Shell was totally unprepared to drill safely and that if they had been allowed to drill into oil reservoir and a spill occurred it would have been a long lasting environmental disaster. State inspectors visited the Red Dog Mine for years and never noticed that lead and zinc dust blowing from the mine, from uncovered trucks hauling concentrate, and from storage piles at the dock were polluting tens of thousands of acres of Cape Krusenstern National Monument with toxic levels of zinc and lead! Similarly State inspectors never noticed that the Pebble partnership was violating the terms of their fish habitat, water use and ADEC discharge permits during exploration activities. The one violation that wasn't overlooked was self reported by the Pebble Partnership! I have previously provided examples of where inadequate state oversight resulted in many Prudhoe Bay oil spills, and the failure to contain and prevent the spread of up oil from the Exxon Valdez.
8. By changing state statutes to eliminate the Alaska Coastal Management Program, public notice for mining related permits, and consideration of state statutes and regulations protecting fisheries habitat the State administration has demonstrated that it is interested in promoting large scale mining in Bristol Bay regardless of the effect on fisheries and the commercial, subsistence, and recreational fishermen who depend on salmon. The assumption of both EPA and Corps of Engineers responsibilities will enable them to do this.

The Kvichak and Nushagak drainages are the largest salmon producing systems remaining in North America. The salmon produced in these systems are a renewable resource of national importance. Most of the once productive systems in California, Oregon, Washington, and now British Colombia have been destroyed or are in serious decline. Most of the loss of salmon production is due to human activities including mining. All attempts to restore this habitat have failed. The sulfide based copper ore which Copper is toxic to fish and aquatic life at part per billion levels'. There are many other copper deposits around the world, but Bristol Bay is the biggest and best salmon producing watershed in the world. The current leadership of the State of Alaska has demonstrated that they are more interested in promoting sulfide mining than protecting essential fisheries habitat. EPA has rightly concluded that the Pebble Mine would physically destroy a significant amount of fish habitat and pollute salmon habitat below the mine in both the Nushagak and Kvichak Drainages. EPA must use its authority under Section 404 of the Clean Water Act to prohibit the issuance of federal permits for the proposed Pebble Mine.

Sincerely,



Lance Trasky